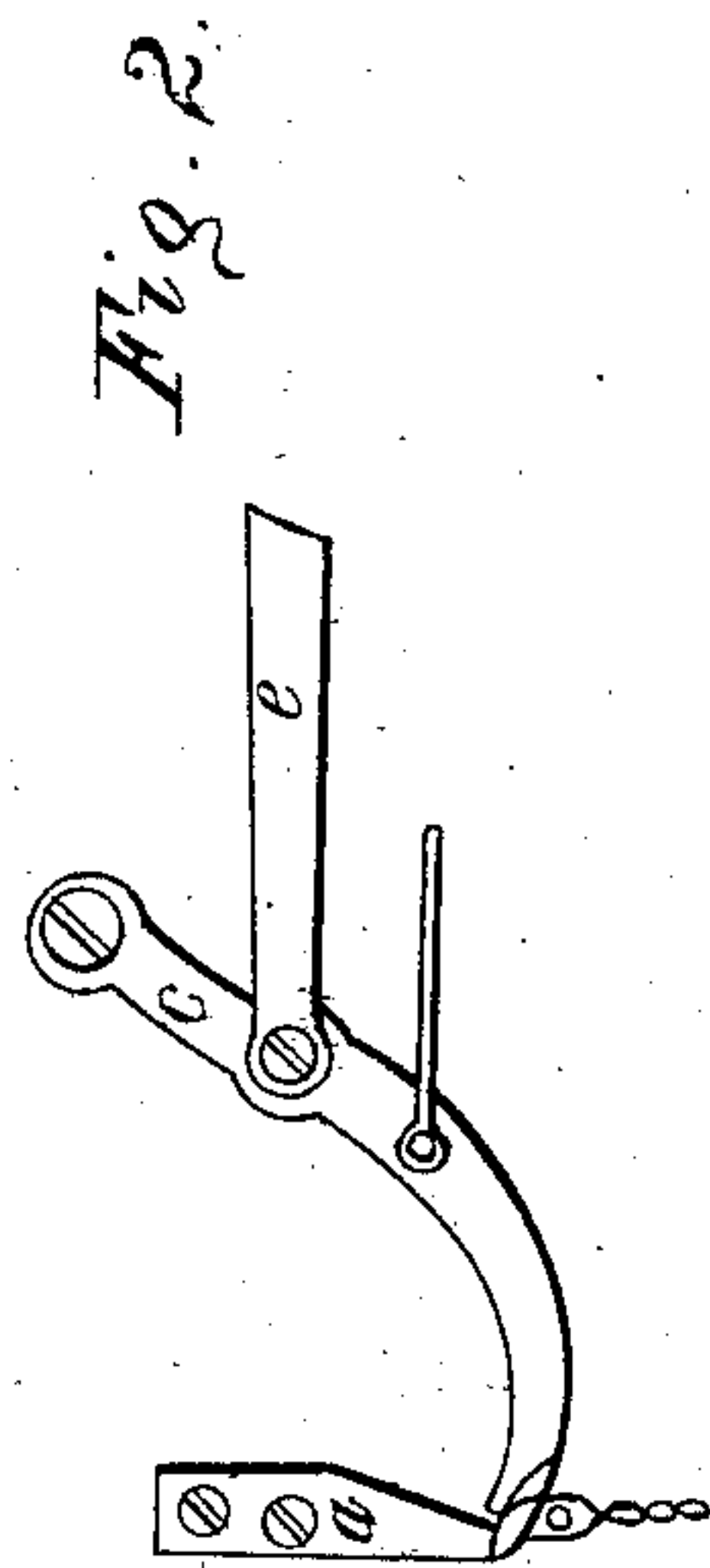
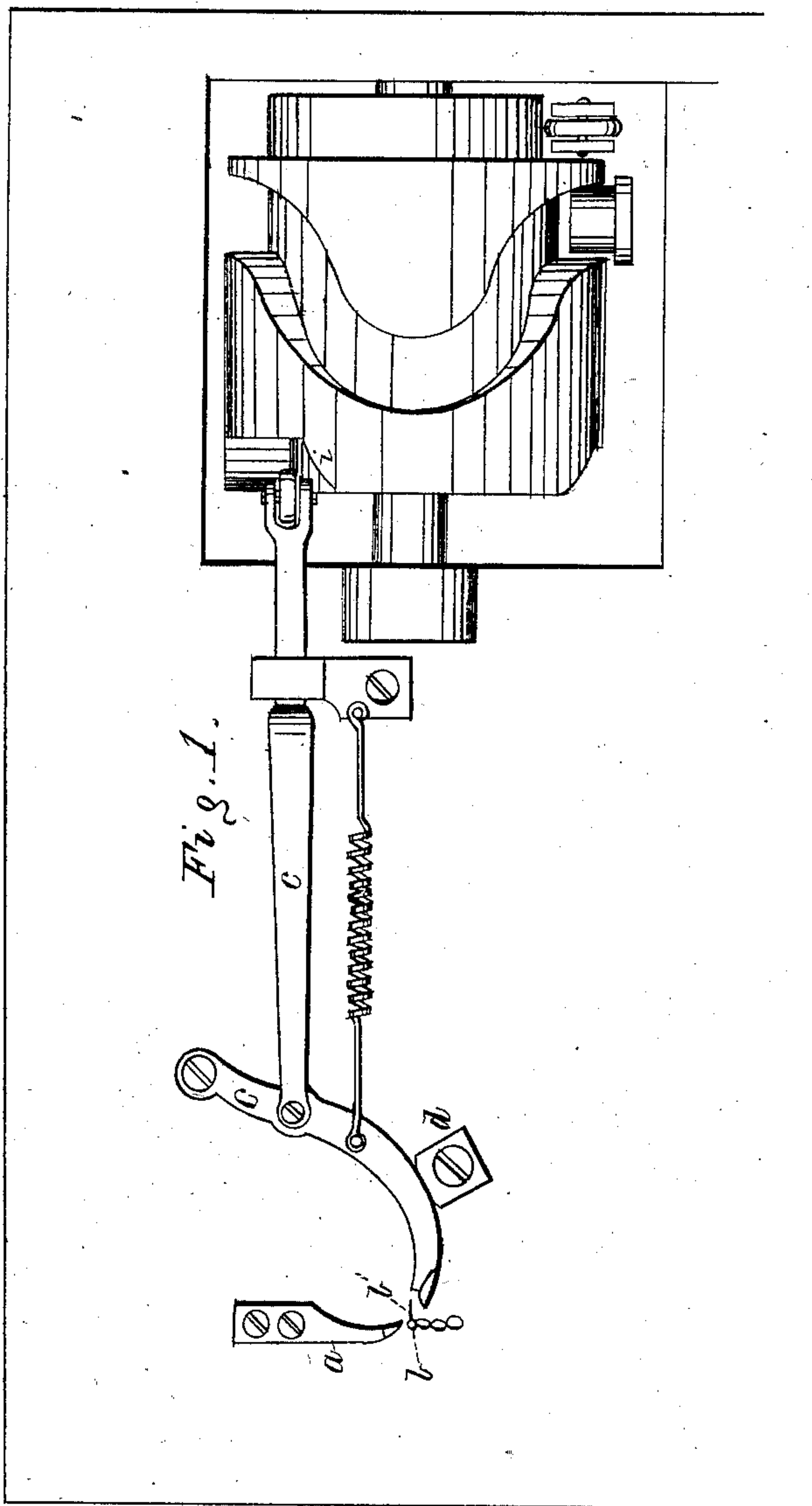


W. C. WATSON.

Sewing Machine.

No. 18,371.

Patented Oct. 6, 1857.



# UNITED STATES PATENT OFFICE.

WM. C. WATSON, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, GEO. H. WOOSTER, AND IRA W. GREGORY.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 18,371, dated October 6, 1857.

*To all whom it may concern:*

Be it known that I, WILLIAM C. WATSON, of New York, county of New York and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawings, making a part of this specification, which is fully described herein, and similar letters indicate similar parts throughout the figures.

The nature of my invention consists in the making of an improved looper for single-thread or chain-stitch sewing-machines, the object aimed at being the obtaining of greater certainty of action with simplicity of parts. The principle of my looper lies in a peculiar combination of two hooks, one of which is stationary and the other movable, which latter I call the "loop-carrying hook," and which is to catch and carry the loop to one side, where it is held open for the passage of the needle by the combined action of both hooks.

Figure I is a plan view of the device as seen from beneath the bed or table of the machine; and Fig. II is the same, but showing the looper in a different position.

At *a* is seen the stationary hook, being an arm screwed to the under side of the table, and having its point terminating just at one side of the hole through which the needle travels in coming below said table, the path of the needle being indicated at the spot *b*. The point of the stationary hook is flat and spread or widened out toward its shank, as shown. The carrying-hook is seen at *c*. This is hinged or pivoted at one end to the bottom of the bed in such position that the other or free end may vibrate past the path of the needle so closely as barely to escape the needle, and terminate in one direction by lapping upon the point of the stationary hook *a*, the extent of motion in the other direction being regulated by a fixed stop at *d*. The forward motion is given by the thrust of a rod, *e*, attached at one end to the shank of *c*, while the other end terminates in a friction-roller placed so as to receive the action of a cam, *i*, on the main shaft. The movement of this hook is such as to catch the loop by a forward motion, or a motion toward *a*, as the needle is about to rise from beneath

the table, and carry the loop onto the stationary hook *a*, where it is held until the needle again descends and has passed through the loop, when said loop is released and allowed to retreat upon the needle-shank to the cloth. The other parts of the machine are constructed after a common manner, or as set forth in Letters Patent granted to me on the 25th day of November, 1856. The operation is as follows:

In Fig. I the needle, having come down its full stroke, is shown as retreating, and the loop is thrown out, as at *b*. The cam *i* at this moment strikes the rod *e*, driving the hook *c* thereby forward, the forked end of which catches the loop and carries it onward toward the point of the stationary hook *a*, over or upon which the point of *c* finally rests. The loop taken by *c* is also then taken upon said stationary hook, so that the loop now embraces both hooks, as in Fig. II, and in which position the loop is spread open in the path of the needle (a feed of cloth having in the meantime been taken) on its next stroke. So soon as the needle has entered, the cam *i* passes from under the roller on *e*, whereby the hook *c* is withdrawn and the loop previously held is released. The needle now again commences its ascent, the hook *c* engages, as before, and the operation of the parts is thus continued.

Instead of a recoil-spring to withdraw *e*, both the forward and backward motions may be produced by a groove-cam acting on both surfaces instead of only one.

I claim—

The specific device herein set forth, being the vibrating hook operating to catch, spread, and carry the loop upon the stationary hook, where by the action of both the said loop will be held securely open in the path of the needle when the feed is given, so as to insure certainty of action without extending the loop more than is requisite for the passage of the needle through it.

In witness whereof I have hereunto subscribed my name.

W. C. WATSON.

In presence of—

J. P. PIRSSON,  
S. H. MAYNARD.